

REMARKS

Applicants have amended claim 1 to include all of the limitations of claims 2 and 3, both of which depend from claim 1, and cancelled these two dependent claims. This amendment has necessitated cancellation of claim 8 and change of dependency of claims 9-12, 14, 15, 18, and 19. Applicants have also amended claims 5, 7, 11-13, and 18-22 to promote clarity. No new matter has been introduced by the amendments.

Claims 1, 4-7, and 9-22 are pending. Reconsideration of this application, as amended, is respectfully requested in view of the remarks below.

Rejection under 35 U.S.C. § 112, second paragraph

The Examiner rejects claims 5, 11, and 13 for indefiniteness. More specifically, referring to the word “deposited” recited in these claims, he asserts that “it is unclear on what these substances [zeolite and copper] are being deposited.” See the Office Action, page 2, lines 19-20. Applicants disagree and reproduce the related recitation below (emphasis added):

“... the zeolite is deposited in the range of 70 - 300 g and the copper is deposited in the state of oxide in the range of 3 - 30 g on a refractory three-dimensional structure ...”

One skilled in the art, in view of the above recitation, would understand that both zeolite and copper are deposited on a refractory three-dimensional structure. In any event, Applicants have amended claims 5 and 11-13 to remove any ambiguity. Note that Applicants have also amended claim 12, which includes the above recitation as well.

The Examiner also rejects claims 7 and 17-22 for indefiniteness on the ground that “by the use of” recited in these claims is not sufficiently descriptive. He requests that “the claims should have an actual step of contact between the gas material and the catalyst composition.” See the Office Action, page 3, lines 1-2. Applicants have amended claims 15 and 18-22. The claims, thus amended, recite “treating an exhaust gas from a diesel engine with a catalyst,” an actual step required by the Examiner. Note that

claim 17 does not recite “by the use of.” It appears that the Examiner has included this claim through an oversight.

Rejection under 35 U.S.C. § 102

Claims 1-22 are rejected for being anticipated by LaBarge, et al., U.S. Patent 6,489,259 or its corresponding U.S. Patent Application Publication 2002/0086793. As the disclosures of the two references are identical, we only discuss U.S. Patent 6,489,259 (denoted herein as “LaBarge”).

Among the rejected claims, claim 1 is the only independent claim and will be discussed first.

Claim 1, as amended, covers a catalyst containing copper, ZSM-5, and β zeolite. The weight ratio of the ZSM-5 and the β zeolite ranges from 1:0.1 to 1:5.

LaBarge describes a catalyst mixture containing 5 catalytic components, which may contain copper as the active catalytic material. Each of the 5 components includes a zeolite. However, this reference does not teach or suggest using both ZSM-5 and β zeolite in a catalyst mixture.

Of note, the Examiner alleges that “the disclosed third, fourth and fifth components [in LaBarge] read directly on the herein claimed zeolite.” See the Office Action, page 3, 23-24. Indeed, this reference describes that zeolite in the third, fourth, and fifth components “can be any type, with Beta and ZSM-5 being preferred; ZMS is particularly preferred.” See column 4, lines 19-20, 27-29, and lines 39-41. Clearly, it teaches using a single zeolite in the third, fourth, or fifth component, not a mixture of ZSM-5 and β zeolite required by claim 1. This is further supported by Example 1 (the only example), in which only ZSM-5 was used in all of the third, fourth, and fifth components. In this example, the zeolite in the first and second component is Y-zeolite or 13X-zeolite, rather than ZSM-5 and β zeolite recited in claim 1.

In sum, LaBarge does not disclose using both ZSM-5 and β zeolite in a catalyst required by claim 1, let alone the required specific ratio between ZSM-5 and β zeolite. In this connection, Applicants would like to point out that “[i]n order to anticipate the claims, the claimed subject matter must be disclosed in the reference with ‘sufficient

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specificity' to constitute an anticipation under the statute." MPEP 2131.03 II, emphasis added.

As discussed above, LaBarge does not disclose, with "sufficient specificity," use of a mixture of ZSM-5 and β zeolite at specific ratios as required by claim 1. It therefore does not "constitute an anticipation under the statute." In other words, claim 1 is not anticipated by LaBarge.

For the same reasons set forth above, claims 4-7 and 9-22, all dependent from claim 1, are also not anticipated by LaBarge.

CONCLUSION

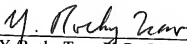
In view of the above remarks, Applicants submit that the rejections asserted by the Examiner have been overcome and claims 1, 4-7, and 9-22, as pending, cover subject matter that is novel over the prior art. Applicants request that all pending claims be allowed.

The Petition for Extension of Time fee in the amount of \$120.00 is being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply any other charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket No. 66501-013US1.

Respectfully submitted,

Date: _____

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Y. Rocky Tsao, Ph.D., J.D.
Attorney for Applicants
Reg. No. 34,053

Customer No. 69713
Occhiuti Rohlicek & Tsao LLP
10 Fawcett Street
Cambridge, MA 02138
Telephone: (617) 500-2503
Facsimile: (617) 500-2499